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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,372	01/03/2000	BYOUNG-CHUL SOHN	Q57096	7742

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EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/476,372

Applicant(s)

SOHN, BYOUNG-CHUL

Examiner

Naghmeh Mehrpour

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 2**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Publication 20050050432 A1) in view of Hulyalkar et al. (US Patent Number 5,787, 080).

Regarding **Claims 2, 8**, Chen teaches a wireless resource allocation method in a wireless communication system including a plurality of wireless terminals and a single access point having a bridge function, the method comprising the steps of:

- a) allocating a wireless resource to a corresponding wireless terminal and receiving data from said wireless terminal in said access point (0012);
- b) performing a check to determine whether there is an error in said data which was received from said wireless terminal in said access point in the step (a) (0012);

c) sending an error occurrence message and allocating a wireless resource for retransmission of data to said wireless terminal simultaneously when the access point detects a data error in the step (b) (0013);

wherein the wireless terminal does not send a wireless resource request for retransmission of the data (0050-0052). Chen does not show one frame comprising the down-link period and an up-link period. However Hulyalkar teaches that one frame comprising the down-link period and an up-link period (see figures 8, col 11 lines 45-52), in the case of error occurrence when mobile requests the base station for allocation of data transmission. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to use the above teaching of Hulyalkar with Chen, in order to minimize the deterioration in the transmission efficiency, and reduce the delay time.

4. **Claims 3, 5-6**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US Publication 2005/0050432 A1) in the view of Hulyalkar et al. (US Patent Number 5,787, 080) and in the further view of Johnston (US Patent Number 6,064,649).

Regarding **Claim 3**, Hulyalkar further teaches a wireless resource allocation method wherein said downlink period comprises a broadcast period, and a download reservation period (Hulyalkar, col 10 lines 55-65, col 11 lines 35-45). Chen modified by Hulyalkar fails to teach a wireless resource allocation method wherein said downlink period comprises a preamble for synchronization. However Johnston teaches a wireless

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resource allocation method wherein said downlink period comprises a preamble for synchronization (col 3 lines 29-39). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Johnston with Chen modified by Hulyalkar, in order to reduce transmission delay and to prevent decreasing an actual data transmission rate.

Regarding **Claim 5**, Chen fails to show that a wireless resource allocation method wherein during said down-link period, said access point transmits a broadcast message and various control information. However Hulyalkar teaches a wireless resource allocation method wherein during said down-link period, said access point transmits a broadcast message and various control information (see figure 8, col 11 lines 45-52). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Hulyalkar with Chen, in order to provide a communication system with better performance by reducing transmission delay.

Regarding **claim 6**, Chen teaches a wireless resource allocation method wherein various control information includes not acknowledge information the wireless terminal transmitted to the access point during the upload reservation period of a previous frame (0050-0052).

5. **Claim 4**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US Publication 2005/0050432 A1), in view of Hulyalkar et al. (US Patent Number 5,787, 080) in the further view of Patel (US Patent Number 5,953,706).

Regarding **claim 4**, Chen modified by Hulyalkar fails to teach a wireless resource allocation method wherein the up-link period comprises a contention period and an upload preservation period. However Patel teach a wireless resource allocation method wherein the up-link period comprises a contention period and an upload preservation period (col 3 lines 59-65-col 4 lines 1-10). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Patel with Chen modified by Hulyalkar, in order to provide a system with less error by reducing the stages where data is manually relayed and transcribed by various service providers.

Response to Arguments

6. Applicant's arguments with respect to claims 2-6, 8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any responses to this action should be mailed to:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (571) 272-7905.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

May 8, 2006



MELODY NEUPOUR
PATENT EXAMINER